

ABSTRACT

A semiconductor substrate (100) is acquired by forming a mask with a target thickness on a major surface of a single-crystal silicon substrate, implanting oxygen ions to the major surface at a high temperature, forming a surface protection layer for blocking oxygen on the major surface, performing annealing, and then stripping off the mask and the surface protection layer. A silicon dioxide layer (102) has a first top surface (102a) corresponding to an area where the mask has not existed and having a relatively long distance from the major surface (100a), and a second top surface (102b) corresponding to an area where the mask has existed and having a relatively short distance from the major surface (100a). As this major surface (100a) is polished by a predetermined quantity, a semiconductor substrate is provided in which only a part of a single-crystal silicon substrate is a SOI substrate.